

# STATEMENT OF BASIS for NEW JERSEY AMERICAN WATER COMPANY

## TITLE V OPERATING PERMIT RENEWAL

Program Interest (PI): 35862 / Permit Activity Number: BOP 130001

### I. FACILITY INFORMATION

New Jersey American Water Company is located at Chimney Rock Road South, Bridgewater Township 08807 Somerset County and consists of a water supply pump station and purification plant. The facility is owned by New Jersey American Water Company and is operated by New Jersey American Water Company.

The facility is classified as a major facility based on its potential to emit 63.0 tons per year nitrogen oxides.

This permit does not contain any hazardous air pollutants.

### II. AREA ATTAINMENT CLASSIFICATION

The Federal Clean Air Act (CAA) sets National Ambient Air Quality Standards (NAAQS) for six common air pollutants. These commonly found air pollutants (also known as "criteria pollutants") are particulate matter, ground-level ozone, carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), and lead. The US Environmental Protection Agency (USEPA) also classifies areas as "attainment" or "nonattainment" for each criteria pollutant, based on the magnitude of an area's problem. Nonattainment classifications are used to specify what air pollution reduction measures an area must adopt, and when the area must reach attainment. Currently, the entire State of New Jersey is designated as nonattainment for the 8-hour ozone NAAQS and portions of the State are designated as nonattainment for the daily SO<sub>2</sub> NAAQS. This facility is located in a nonattainment area of the State in which the ambient air concentration exceeds 8-hour ozone NAAQS and daily SO<sub>2</sub> NAAQS.

<http://www.epa.gov/air/oaqps/greenbk/>

### III. BACKGROUND AND HISTORY

The equipment that emits air contaminants from this facility include: two diesel fuel fired lift engines that power standby pumps with a maximum rated power of 425 and 385 horsepower, four natural gas engines that power pumps with a maximum rated power of 1435 horsepower, one combustion turbine emergency generator, two diesel engine emergency generators, two lime storage bins, one carbon storage bin, and two diesel fuel fired boilers rated at 1.33 and 1.48 million British thermal units per hour.

Consistent with N.J.A.C. 7:27-22.30(d) 1, Table 1 - Operating Permit Revision History (located at the end of this document) provides a summary of all the changes that have been incorporated into the operating permit through seven-day notice changes, administrative amendments, minor modifications, or significant modifications during the past five-year term of the initial operating permit or the most recent renewal thereof. Please refer to the attached explanation sheet for the structure and configuration of conditions of approval, included in the Facility Specific Requirements section of this permit.

As part of the 5-year renewal review and the public comment process, the Department requires major facilities to submit facility-wide emission trends for major sources of air contaminants. These graphs for the last five years are included at the end of this document.

### IV. BASIS FOR MONITORING AND RECORDKEEPING REQUIREMENTS

The facility's operating permit includes monitoring, recordkeeping and reporting requirements that are sufficient to demonstrate the facility's continued compliance with the applicable requirements consistent with the following:

1. Provisions to implement the testing and monitoring requirements of N.J.A.C. 7:27-22.18, the recordkeeping and reporting requirements of N.J.A.C. 7:27-22.19, and all emissions monitoring and analysis procedures or compliance assurance methods required under the applicable requirements, including any procedures and methods promulgated pursuant to 40 CFR 64; and

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2. Where the applicable requirement does not require direct periodic monitoring of emissions, the Department requires periodic monitoring of surrogate parameters sufficient to yield reliable data from the relevant time period that are representative of the facility's compliance with the permit.
3. In this case, monitoring of operating hours is required for each emergency generator, low lift diesel engines 1 and 2, for purposes of monitoring compliance with the annual emission limit. Temperature monitors are required at the outlet of the catalytic oxidizer for purposes of monitoring compliance with the carbon monoxide and volatile organic compound concentration limits. Pressure drop monitors are required for purposes of demonstrating compliance with the oxidation catalyst removal efficiencies for VOC and CO. A cumulative fuel use monitor is required for four natural gas engine powered pumps. And fuel flow rate monitors are required for the emergency boilers burning diesel to maintain the annual emission rates.
4. In situations where the underlying applicable requirement did not specify any periodic testing or monitoring, the following factors were considered in the evaluation and determination of the appropriate methodology for compliance demonstration for each emission unit:
  - Pollutant's potential impact on public health and environment.
  - Emission unit and control device (older, less reliable equipment generally require more monitoring to ensure ongoing compliance).
  - Compliance history and margin of compliance.
  - Emissions variability and process stability (emissions units with highly variable process rates or materials generally require more monitoring to ensure ongoing compliance)
  - Quantity of emissions (emissions units that will have more impact on the environment generally require more monitoring to ensure ongoing compliance).

### V. APPLICABLE STATE AND FEDERAL RULES

The facility is subject to New Jersey Air Pollution Control Regulations, codified in N.J.A.C. 7:27-1 through 34, as applicable. A complete text of these regulations is available at:

<http://www.nj.gov/dep/aqm/rules27.html>

The facility is also subject to Federal regulations listed below.

MACT Subpart A: General Provisions

MACT Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants from Stationary Internal Combustion Engines

The Greenhouse Gas (GHG) emissions from this facility are 46,500 TPY CO<sub>2</sub>e and there is no GHG emissions increase.

### FACILITY'S COMPLIANCE STATUS

The Responsible Official at the facility has certified that the facility currently meets all applicable requirements of the Federal Clean Air Act and the New Jersey Air Pollution Control Act. Based on this certification, the Department's evaluation of the information included in the facility's application, and a review of the facility's compliance status, the Department has concluded that this air pollution control operating permit should be approved.

This operating permit includes a permit shield, pursuant to the provisions of N.J.A.C. 7:27-22.17. A permit shield provides that compliance with the relevant conditions of the operating permit shall be deemed compliance with the specific applicable requirements that are in effect on the date of issuance of the draft operating permit, and which form the basis for the conditions in the operating permit.

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Also, prior to the expiration of the Operating Permit's five-year term, the facility will be required to apply for a renewal, at which time the Department will evaluate the facility and issue a public notice with its findings.

#### **VI. EXEMPT ACTIVITIES**

The facility's operating permit does not include exempt activities such as office and interior maintenance activities, maintenance shop activities, food preparation facilities, cafeterias and dining rooms, etc. A complete list of exempt activities, as allowed by the Operating Permit rule, can be found at N.J.A.C. 7:27-22.1.

NOTE TO PERMIT WRITERS - The revision history table, shown below, should be copied from the Revision History in the General Activity in NJEMS. Only include the permit actions approved since last renewal was issued.

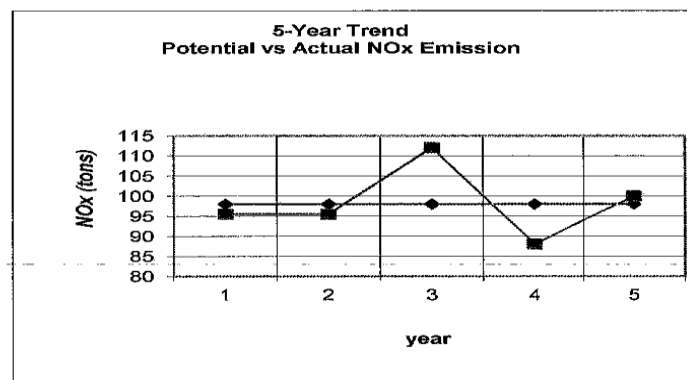
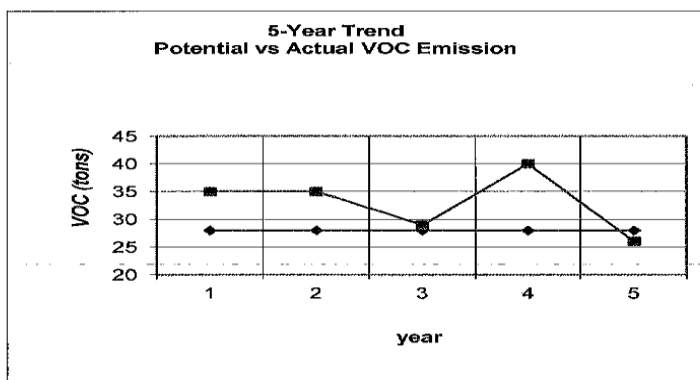
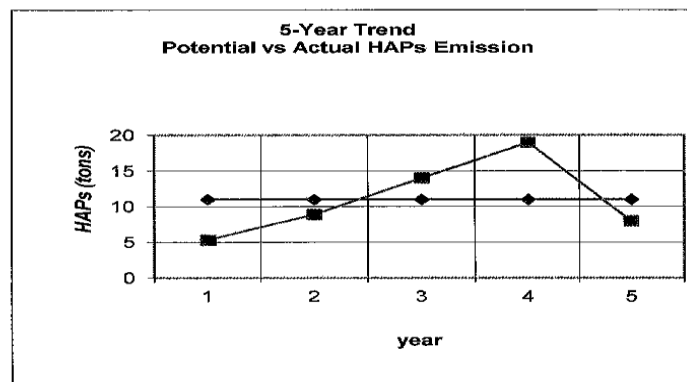
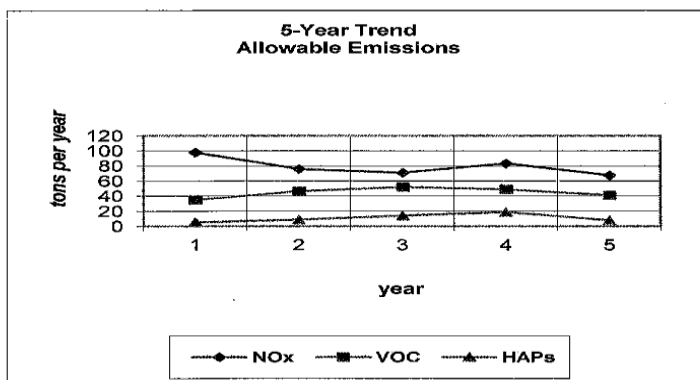
Table 1 - Operating Permit Revision History

Facility Name:	New Jersey American Water Company	PI Number:	35862	Activity Number:	BOP 130001
<u>Activity Number</u>	<u>Type of Revision</u>	<u>U/BP NJID</u>	<u>Description of Revision</u>		<u>Approval Date</u>
			No permit actions since last renewal activity BOP 080002 approved on November 1, 2012		

Attachment to the RADIUS Operating Permit Renewal Application

**Section 6**  
**Facility Wide Trends**

Sample Charts



FACILITY NAME (FACILITY ID NUMBER)

BOP050001

Activity Number  
(assigned by the  
Department)

## New Jersey Department of Environmental Protection Facility Specific Requirements

Emission unit number  
(assigned by the  
facility)

Brief description of emission unit

Emission Unit: U1 25 MM BTU/hour Boiler burning Fuel Oil and Natural Gas  
Operating Scenario: OS Summary OR OSXX Boiler burning Fuel Oil

OS Summary lists all rules and requirements that apply to an emission unit, regardless of operating scenarios. Emission unit may contain one or more pieces of equipment and the corresponding operating scenarios

OSXX denotes the operating scenario number and lists the rules and requirements that apply to a particular scenario. An operating scenario represents various ways (or scenarios) a piece of equipment can operate.

Records to be kept

Submittal  
requirement

Item  
Number

Description of applicable  
requirement

Air contaminants

Monitoring method to  
ensure compliance

Actions to be  
taken by the  
facility

Ref.#	Applicable Requirement	Monitoring Requirement	Recordkeeping Requirement	Submittal/Action Requirement
1	Conduct a comprehensive stack test at emission point PTXX at least 18 months prior to the expiration of the approved operating permit to demonstrate compliance with the <u>CO, NOx, TSP and VOC</u> emission limits.[N.J.A.C. 7:27-22.16(e)]	Other: <u>Stack emission testing.</u> Stack test shall be conducted for CO, NOx, TSP, and VOC emissions (add language as needed). Based on any 60-minute period. [N.J.A.C. 7:27-22.16(e)]	Other: <u>Stack test results</u> . [N.J.A.C. 7:27-22.16(e)]	Stack Test - <u>Submit a protocol, conduct stack tests, submit result s:</u> As per the approved schedule. <u>Submit a stack test protocol to the Bureau of Technical Services</u> (BTS) at PO Box 437, Trenton, NJ 08625 at least 30 months prior to the expiration of the approved operating permit. [N.J.A.C. 7:27-22.18(e)] and [N.J.A.C. 7:27-22.18(h)]

Rule citation (subchapter, section, and paragraph) for the applicable requirement

Rule citation for the monitoring requirement

Rule citation for the recordkeeping requirement

Rule citations for the submittal/action requirement

1/29/15